

ATTACHMENT B**SUBSTITUTE SPECIFICATION**

(Showing All Changes Made to the Published Specification in International Application
No. PCT/SE2005/000127)

A BEVERAGE PACKAGING UNIT**BACKGROUND OF THE INVENTION****FIELD OF THE INVENTION**

The present invention relates to a beverage packaging unit.

DESCRIPTION OF THE RELATED ART

In present days day society people drink a large number of different sorts of beverage beverages, for instance aerated or carbonated beverages, juices, milk, milk-based beverages, and also packaged beer, ale, and wine, for instance in portion-wise packaging units.

The most common packaging units for present day beverages are bottles of varying sizes each with its characteristic appearance, i.e., a cylindrical package which that narrows at its top to form an orifice from which the beverage can be drunk, wherewith the The orifice can be re-sealed with the aid of a screw-threaded cork or a screw cap. The bottles are normally made of plastic, such as PET, or glass.

Another type of common packaging unit is an aluminium aluminum can of cylindrical shape, so as to enable such cans to be mutually stacked, and comprising including a characteristic can opening procedure in which part of the aluminium aluminum end in the form of a tab is broken away from the upper side end of the can and therewith create a hole to provide an opening from which the contents of the package can be drunk.

Another common type of packaging unit is the a Tetra Pak Pak® unit with which a plastic wrapped drinking straw is glued to one of the two largest side surfaces of the Tetra Pak Pak® unit. The contents of this that packaging unit are typically drunk by removing the straw from the unit and then removing the plastic wrapping and inserting the straw down through a hole provided in the upper side of the Tetra Pak Pak® packaging unit and that is covered with aluminium aluminum foil. The contents of the Tetra Pak Pak® unit can then be drunk through the straw.

Another common beverage packaging unit is a glass bottle that includes a cap fitted over the neck orifice of the bottle, and a hole an opening from which the bottle contents can be drunk.

All types of packaging units have certain positive and negative aspects. Generally speaking, some packaging units are not transport effective because they cannot be packed tightly together, while others cannot be re-sealed, and because some other packaging units are unhygienic. The drawbacks are described in more detail hereinafter.

One problem with respect to some packaging units is that they are transported over long distances, most often in large freight vehicles. The shape of cylindrical beverage packaging units prevents optimal use of the freight volume of the vehicle. The typical PET bottles are usually placed in crates, which are then stacked firmly one upon the other. This That means that large volumes around the bottles and above and beneath respective bottles goes go unused. This That problem thus also exists with all cylindrical packaging units that have a tapering upper part, where either a screw cork or a screw cap is affixed. Another packaging unit that constitutes a part of this

problem is the typical aluminium aluminum can. This can, which is also cylindrical and therewith therefore also results in unused freight volume around the cans.

Another problem with many beverage packaging units is that they can not be re-sealed. When such a packaging unit has been opened on a given occasion [,.] in order to drink its contents, it is normally either necessary for the person concerned to empty the unit of its contents at one and the same time or to throw away beverage that he/she does not wish to drink subsequent to having opened the unit.

The person drinking from the a packaging unit will normally wish to drink a small amount, often at different times, and be able to re-seal the unit so that its content remaining contents can be drunk later on. One solution to this that problem exists in the is a bottle that is sealed with a screw-on cork, for instance the a PET-bottle, although these those bottles have less effective freight-volume properties, as mentioned above. Other typical beverage packaging units, such as aluminium aluminum cans, glass bottles provided with caps, or Tetra Pak Pak® packaging units, cannot be re-sealed.

The unhygienic packaging unit present presents a further problem. Aluminium Aluminum cans are exposed to the surroundings from the manufacture and then during transportation, e.g., to the grocery store, and then in within the store itself, and subsequently, until the liquid in respective cans has been drunk. In order to drink from the can, the can is opened and the part of the can that is folded away to provide an opening through which the content contents of the can be drunk is folded down into the can, i.e., down into the liquid that is later to be drunk. Some packaging units, among them aluminium aluminum cans, are designed so that the person drinking from

the unit is forced to place his/her mouth directly against a part of the packaging unit which, as earlier mentioned, has been exposed to the surroundings from the manufacture of the can until the person concerned drinks from the unit. Moreover, the liquid is drunk from the can [[,]] into which the can part that has been folded away to provide said the opening has been immersed. The person who drinks the liquid in the can is ~~therewith~~ thereby exposed ~~for instance~~ to bacteria, virus, and/or toxic substances, for instance, as a result of the direct contact of the person's mouth with both the can and the liquid, which is unhygienic.

One further drawback and problem encountered with the Tetra Pak Pak® packaging unit that includes a drinking straw is that the Tetra Pak Pak® unit is deformable, ~~meaning that~~ Consequently, when the unit has been opened with the aid of the straw, and while gripping the Tetra Pak Pak® unit with unaccustomed fingers [[,]] the unit is squeezed together to such an extent that liquid will gush from the Tetra Pak Pak® unit like a fountain and therewith land outside the unit.

All of the aforesaid above-described problems associated with known beverage packaging technology are solved by means of the present invention, which provides a stackable and re-sealable and hygienic beverage packaging unit.

SUMMARY OF THE INVENTION

Accordingly In accordance with the present invention there is provided ~~in accordance with the invention~~ a beverage packaging unit that includes an opening from which the liquid contents of the unit can be drunk or poured, ~~wherewith~~ said. The opening, or orifice, can be closed with the aid of ~~an~~ a closure element, ~~wherein~~

the invention is characterized in that the The packaging unit is parallelepipedic parallelepipedal in shape and includes a hollow, box-like body and said the closure element ; in that said The parallelepipedic parallelepipedal, hollow, box-like body has a bevelled corner at which there is formed a three-sided, or triangular, surface that connects is connected with said the box-like body ; in that there projects out Projecting outwardly from said the triangular surface is a tubular part that includes said the opening or orifice ; in that said The closure element includes a generally pyramidal body which that is shaped so that when in abutment with said the bevelled corner of said the box-like body it forms, together with said the body, said the parallelepipedic parallelepipedal packaging unit ; in that said The closure element includes a cavity for receiving said the tubular part ; and in that the The packaging unit includes co-acting fasteners on said the tubular part and also in said the cavity for removably retaining said the closure element at said the tubular part, so that said the box-like body and said the closure element will form a parallelepiped.

BRIEF DESCRIPTION OF THE DRAWINGS

The invention will now be described in more detail, partly with reference to an exemplifying embodiment of the invention illustrated in the accompanying drawings, in which

- Figure 1A illustrates shows a side view of a packaging unit according to in accordance with the invention, in which the an outwardly projecting tubular part is placed on the a three-sided surface of the a box-like body and constitutes the to provide an opening from which liquid beverage is able to run out can be dispensed,

and also shows the opening closure part of the packaging unit in abutment with the three-sided surface of the box-like body;

- Figure 1B illustrates the packaging unit according to the invention in which the outwardly projecting tubular part is shown placed on the three-sided surface of the box-like body, said surface constituting the opening from which beverage is able to run out, wherein the figure shows is an exploded side view of the packaging unit shown in Figure 1A with the closure part of the packaging unit released from the outwardly projecting tubular part of the box-like body;

- Figure 2A shows is a side view of the packaging unit according to figure shown in Figures 1A-1B including a pipe tube or drinking straw inserted in the outwardly projecting tubular part and showing the closure element in abutment with the three-sided surface of the box-like body;

- Figure 2B illustrates the invention according to figures 1A-1B and shows a pipe or drinking straw in the outwardly projecting tubular part, wherewith is an exploded side view of the packaging unit shown in Figure 2A with the closure element is shown loosened from the outwardly projecting tubular part of the box-like body but still in contact with the pipe or straw.

- Figure 2C illustrates the inventive packaging unit according to figures 1A-1B and shows a pipe or drinking straw inserted in the outwardly projecting tubular part and also shows is an exploded side view of the packaging unit shown in Figures 1A and 1B with the opening closure element fully released from the outwardly projecting tubular part and from the pipe or straw inserted in said the tubular part;

- Figure 2D is an enlarged, fragmentary side view of the opening closure element shown in figure Figure 2C, including the cavity, the straw, and the outwardly projecting tubular party part.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figures 1A [[-]] and 1B of the present invention relate to show a beverage packaging unit 1 in accordance with the present invention that comprises includes a parallelepipedic parallelepipedal, hollow, box-like body 2, and an opening closure element 3. An opening 8 is provided through which a beverage contained in the body 2 can be drunk, said. The opening 8 being is sealable with the aid of said closure element 3.

The packaging unit 1 is parallelepipedic parallelepipedal in shape and comprises includes the hollow box-like body 2 and the opening closure element 3. One of the corners of the parallelepipedic parallelepipedal hollow body 2 is bevelled to provide a three-sided [[,]] or triangular [[,]] surface 7. This three-sided surface 7 connects that is connected with the box-like body 2. An outwardly projecting tubular part 4, which includes said opening 8, is located on the three-sided triangular surface 7.

The opening closure part element 3 includes a generally pyramidal body that is so configured so that when the opening closure element 3 is in abutment with the three-sided triangular surface 7 at the bevelled corner of the box-like body 2, said the pyramidal body will form said parallelepipedic the parallelepipedal beverage packaging unit 1 together with the box-like body 2. The opening closure element 3 includes a

cavity 6 which is intended to receive for receiving the tubular part 4. Mutually co-acting fasteners fastening means 10, for instance snap fasteners or screw threads, are provided on both the tubular part 4 and in the cavity 6. These The co-acting fasteners retain fastening means releasably said retain the opening closure element 3 on the tubular part 4, so that the box-like body 2 and the opening closure element 3 will form said parallelepipedic the parallelepipedal packaging unit 1.

According to In accordance with one embodiment of the invention there is included said tubular part 4 and said opening 8 through which beverage contained in the box-like body 2 will run out is dispensed.

Figures 2A-2D illustrate a further embodiment in which a pipe tube 5, such as a drinking straw, made of an appropriate plastic material, is firmly fixed, said relative to box-like body 2. The straw preferably being is an expandable or non-expandable straw that extends through the tubular part 4 down into the interior of the box-like body 2, with the bottom end 20 of the straw 5 in contact with the bottom 21 of the box-like body 2.

The pipe tube 5 inserted down into said tubular part 4 is expandable along a part portion extending from said tubular part 4. The pipe tube 5 will preferably include includes an outwardly-extending edge 16 which is positioned so as to come into abutment with the inside surface 17 of the body 2. This will to prevent displacement of the pipe tube 5 from its position in within the box-like body. The edge 16 is resiliently deformable to the extent that the edge 16 will be deformed deflect when the pipe is pressed down through the tubular part 4. Subsequent to the pipe tube 5 and the edge 16 having been forced down into the box-like body 2, the edge 16 will return

to its original form and ~~constitute serve as~~ an obstacle to withdrawal of the pipe tube 5 from the box-like body 2, or to outward movement of the pipe tube 5 away ~~up~~ from the bottom 21 of said box-like body 2.

According to In accordance with one embodiment, the pipe tube 5 lack lacks the edge 16, ~~therewith thereby~~ enabling the pipe tube 5 to be freely withdrawn freely from the box-like body 2 and, likewise, enabling the tube 5 to be freely inserted into said the body.

In one embodiment of the invention, with the tubular part 4 ~~as said~~ including the opening, the fastener fastening means 10 is a snap-in fastener. The As shown in Figure 1B, the snap-in fastener preferably comprises—a includes an outwardly-extending shoulder or lip 13 located externally on the tubular part 4, and a shoulder-hooking receiving recess 14 located inside the cavity 6 on of the closure element 3. The fastener fastening means 10 is adapted so that the closure element 3 can be rotated around relative to the tubular part 4. The closure element 3 is removed from the tubular part 4, preferably by twisting said the element 3 so that the corners of said the element will be are free from the three-sided triangular surface 7. The closure element 3 is then drawn over orthogonally in the free standing corners withdrawn orthogonally from shoulder or lip 13 and out away from the three-sided triangular surface 7 of the body 2. As the opening closure element 3 is drawn powerfully withdrawn, preferably by one and the same person, the shoulder 13 and the shoulder hooking —receiving recess 14 are finally deformed elastically and the closure element 3 is thus released from the box-like body 2. The packaging unit can be re-sealed, since because the shoulder 13 and the recess 14 remain intact after removal of the

closure element 3, therewith thereby enabling the packaging unit to be re-closed by virtue of the shoulder 13 snapping into the shoulder-receiving recess 14.

In another embodiment of the invention, the fastener fastening means 10 is screw-threaded, wherewith wherein the tubular part 4 comprises includes an external screw thread. The cavity 6 of the closure element 3 comprises includes internal threads. The closure element 3 is released from the box-like body 2, by turning the closure element 3 in a given direction so that the element 3 will loosen from the box-like body 2.

In a further embodiment the pipe 5 is placed in the tubular part 4 in which a snap-lock is provided [[;]] (see figures 2A- Figure 2D). The snap-lock is comprised in the form of an outer toothed ring 12, which preferably encircles the pipe tube 5, and a recess or notch 15 in the cavity 6 of the closure element 3, said . The recess 15 also preferably encircling encircles the cavity 6, wherein so that the toothed ring 12 and the recess 15 hook together due to because of the resilient deformation of the ring 12 and the recess 15. Because the ring 12 and the recess 15 remain intact and are not permanently deformed, the packaging unit can be re-closed by virtue of the recess 15 snapping onto the toothed ring 12. The ring 12 and the recess 15 are used so that the pipe 5 is able to expand.

The tubular part 4 is preferably expanded enlarged at a distance outward from the three-sided triangular surface 7, so that the person concerned will be able to encircle the tubular part 4 with his/her lips and therewith drink from the packaging unit

1. This That arrangement avoids lip contact with surfaces of the box-like body 2 that have not been protected by the closure element 3.

The opening closure element 3 ~~shall be~~ is capable of sealing abutment with the ~~three-sided triangular~~ surface 7 of the ~~tubular part 4~~ box-like body 2 in the case of all embodiments, and then preferably also with the outer end of the tubular part 4. This That arrangement also protects the ~~three-sided triangular~~ surface 7 and the tubular part 4 from contamination.

Plastic bridges 18 are preferably fastened between the box-like body 2 and the closure element 3 that abuts said body 2, irrespective of the embodiment concerned. When removing the closure element 3 from the box-like body 2 and therewith thereby opening the packaging unit 1, ~~these~~ the plastic bridges 18 are ~~broke~~ broken off, therewith severed, thereby indicating that the packaging unit has been opened.

Although a number of embodiments have been described above, it will be understood that the outwardly projecting tubular part 4 of the box-like body 2, the pipe tube 5, and the cavity 6 of the closure element 3 ~~may~~ can be designed in some other appropriate manner without departing from the basic concept of the invention.

The present invention shall ~~not~~ therefore not be considered to be limited to the described and illustrated exemplifying embodiments thereof, since variations can be made within the scope of the accompanying claims.

CLAIMS

What is claimed is:

ABSTRACT OF THE DISCLOSURE

A beverage packaging unit that includes an opening from which the liquid contents of the unit can be dispensed and a closure. The packaging unit is parallelepipedal in shape, including a hollow, box-like body and the closure. The box-like body has a bevelled corner with a triangular surface from which a tubular part that includes the opening extends. The closure includes a generally pyramidal body which is shaped so that when in abutment with the bevelled corner of the box-like body it forms with the box-like body a parallelepipedal packaging unit. The closure includes a cavity for receiving the tubular part. The packaging unit includes co-acting fasteners on the tubular part and also in the cavity for removably retaining the closure on the tubular part.

Figure 1A

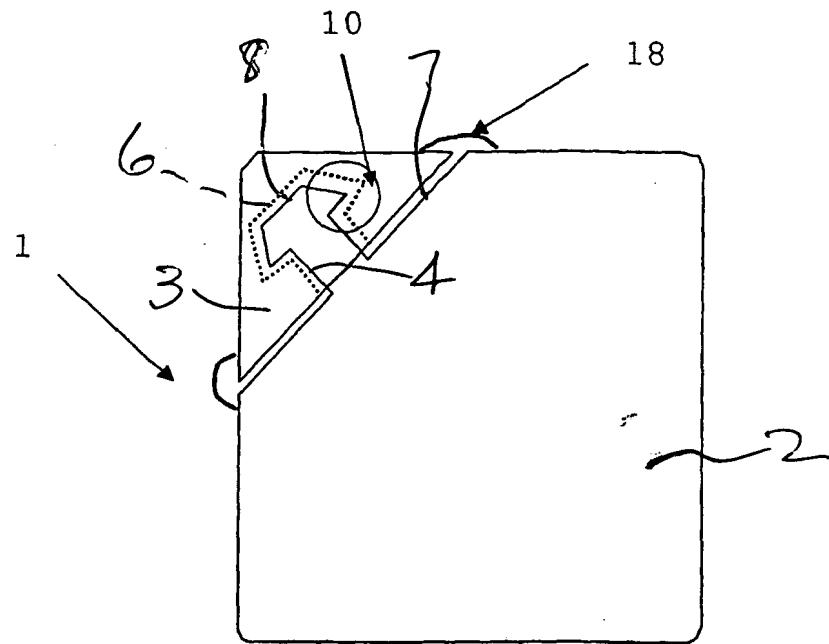
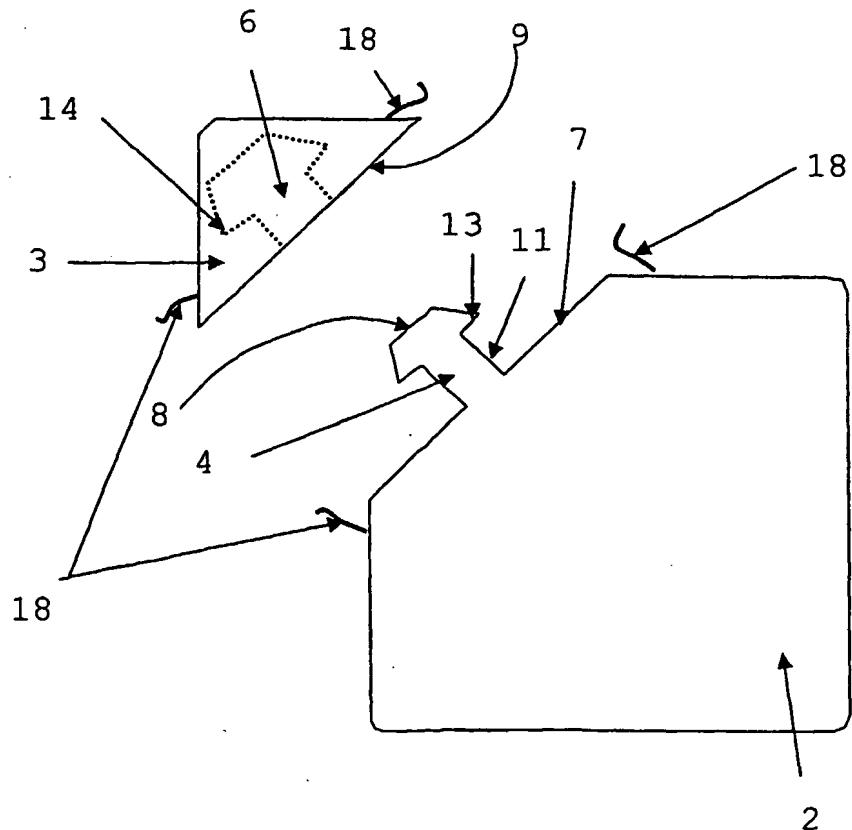


Figure 1B



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Figure 2A

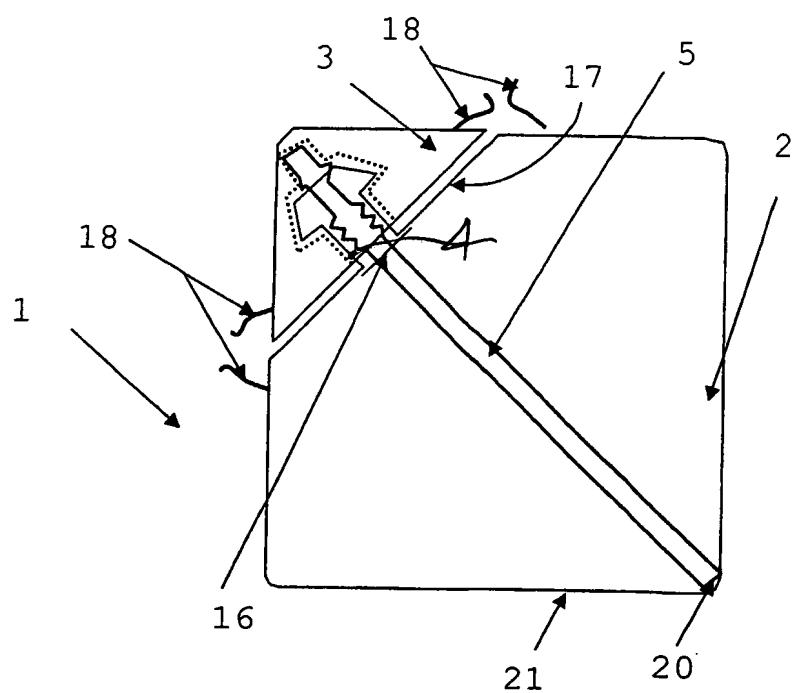
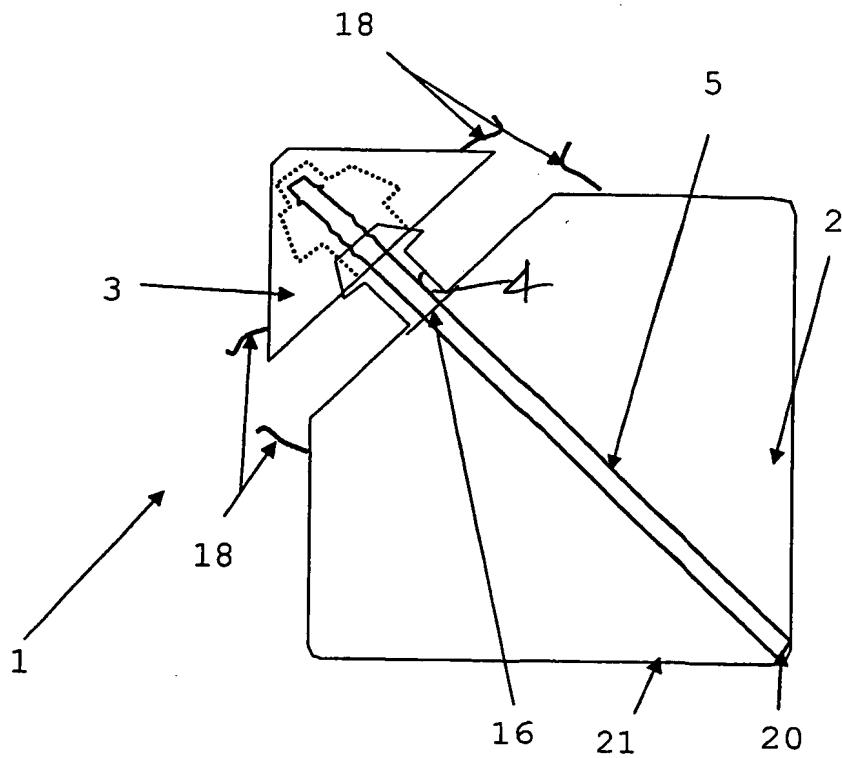
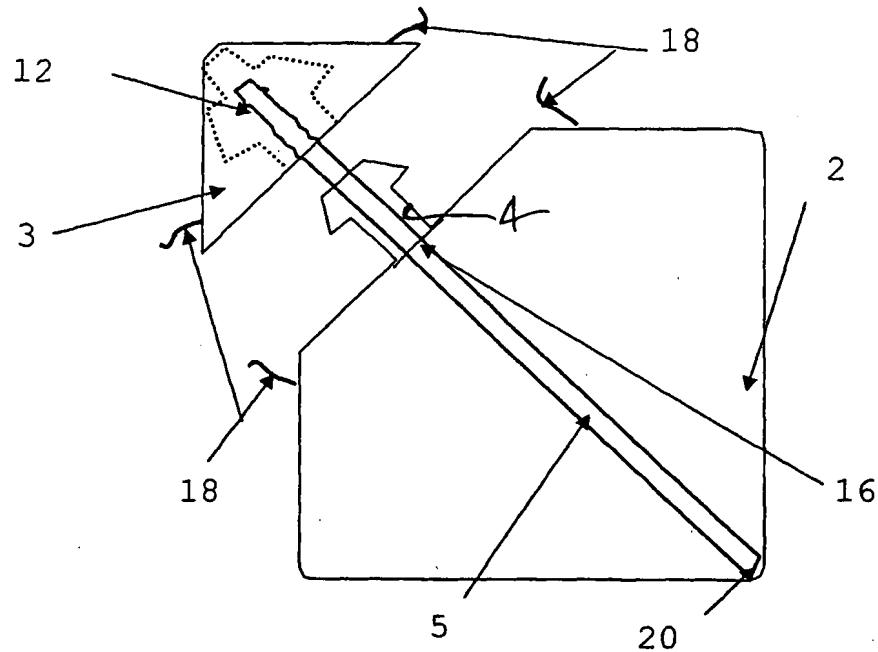
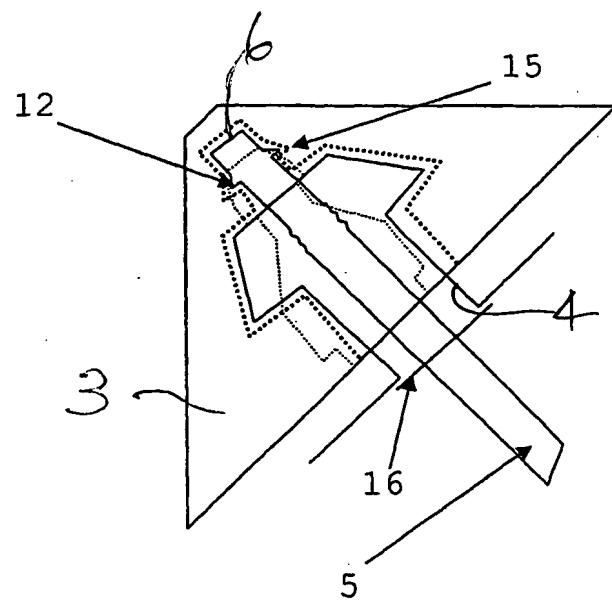


Figure 2B



~~SUBSTITUTE SHEET (RULE 26)~~

Figure 2C

Figure 2D ~~to~~ Enlargement of the closure
~~unit from figure 2C~~~~SUBSTITUTE SHEET (RULE 26)~~